

Another advantage is that opportunity for damage to the cutting edges when adjusting or setting the circular blades is reduced because the cutting gap needs to be set only once. There is no relative displacement in either direction of the circular blades or of the blade shafts, and the circular blades remain fixed in place during their entire service life.

A third advantage is that conversion time is greatly reduced because the time-consuming setting and monitoring of the cutting gap is eliminated. Instead of one blade, a pair of blades can be positioned in one step. No relative displacement in either direction of the circular blades or of the blade shafts is required, and the cutter units are adjustable in a fully automated manner.

Yet another advantage of the invention is the increased availability and increased production output of the cutting unit due to the reduced conversion time, rapid exchange of worn cutter units, simple dismantling of worn parts because the blade shafts are not continuous, and the possibility of exchanging the worn parts and grinding the circular blades outside the cutting equipment.

Still another advantage of the invention is the increased production output due to the cutting unit which is serviced more easily and quickly.

Another advantage of the present invention is realized by the non-interlocking upper blade drive in each circular cutting unit which allows easy and quick exchange of circular blades with minimal operational interruptions.

A further advantage of the present invention is a constant, burr-free cut-edge quality which is obtained by using a constant cutting gap, reduced overlap of the circular blades, and strongly reduced shearing surface.

A still further advantage of the present invention is realized by the cutting unit frame which carries the pressure between the two blades and thereby reduces shaft loads and allows a small shaft diameter and circular blade diameter. The result is a steeper cutting angle, lower forces, and a neater cut edge. --